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Andrew Fertlitsch

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EXAMINER

DULANEY, BENJAMIN O

ART UNIT

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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/964,985	Applicant(s) FERTLITSCH ET AL.	
	Examiner BENJAMIN O. DULANEY	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 11/05/08, with respect to the rejection(s) of claim(s) 1-3, 7 and 8 under U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. patent 6,624,909 by Czyszczewski et al.

Applicant's arguments filed 11/5/08 have been fully considered but they are not persuasive.

Since the argument for claims 4 and 20 bring up a previously addressed argument without addressing examiner's previous response to those arguments, the arguments sent out in the final office action on 8/5/08 are restated below.

Regarding applicant's argument for claim 4, that Sakaguchi does not teach only allowing selection of printing devices with capabilities that match requirements, examiner disagrees. As seen in figure 3, Sakaguchi's feature of "inhibit output of group" allows selection of only the devices with "two faces" printing (printer 3-1 and 3-2 are selected), while the printers with only "one face" capability are not selected. Hence the selection of the group by the user causes only the printers with the correct capabilities to print, and not allowing the printers with insufficient capabilities to print. Therefore the insufficient printers are not selected and the feature of "prompting only allows selection of printing devices with capabilities that match requirements" is taught.

Regarding applicant's argument for claim 20, that Takeoka does not teach a determination of printing device's disk storage capacity, examiner disagrees. Takeoka teaches in previously cited column 10, lines 5-8 the determination of storage capacities for all of the different memories of the printer, not just the buffer. Even if the buffer was the sole memory taught, Takeoka would still render the determination of disk storage capacity obvious since both buffer and disk are memories with the same basic purpose and their differing uses have no effect on the determination of its capacity. Therefore the rejection stands.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1) Claims 1-3, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,985,245 by Takahashi, and further in view of U.S. patent 6,624,909 by Czyszczewski et al.
- 2) Regarding claim 1, Takahashi teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component; receiving user input comprising a cluster printing selection at said print system component on said computing device, wherein said selection identifies

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specific printing devices and communicates a specific quantity of printing devices (Column 22, lines 30-37; Figure 20); combining said print task with said cluster printing selection using said print system component on said computing device thereby creating driver-dependent data; transmitting said driver-dependent data to a printer driver, wherein said printer driver resides on said computing device; creating spool data from said driver-dependent data, using said print driver on said computing device (Column 29, lines 21 – Column 30, line 14; figure 1, item 102 is the “computing device”); determining, with said print system component on said computing device, portions of said spool data to be distributed to each of said specific printing devices (Column 29, lines 21 – Column 30, line 14); distributing said portions of said spool data among said specific printing devices with said print system component, said distributing comprising concurrent parallel playback of said portions of said spool data, to each of said specific printing devices (Column 25, lines 20-49).

Takahashi does not specifically teach a print system component, which resides on a computing device which said print task originates.

Czyszczewski teaches a print system component, which resides on a computing device which said print task originates (column 7, lines 54-56; print server can have a user interface for inputting print job selections).

Takahashi and Czyszczewski are combinable because they are both from the printing field of endeavor.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to combine Takahashi with Czyszczewski to add a user interface at

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a server. The motivation for doing so would have been “to select a document to print” (column 7, line 56). Therefore it would have been obvious to combine Takahashi with Czyszczewski to obtain the invention as specified by claim 1.

3) Regarding claim 2, Takahashi teaches the method of claim 1 wherein said determining comprises job splitting (Column 25, lines 35-49).

4) Regarding claim 3, Takahashi teaches the method of claim 1 wherein said determining comprises copy splitting (Column 25, lines 50-61).

5) Regarding claim 7, Takahashi teaches the method of claim 1 further comprising querying at least one printing device to determine at least one of its capabilities (Column 20, lines 20-37).

6) Regarding claim 8, Takahashi teaches the method of claim 1 further comprising querying at least one printing device to determine its availability (Column 20, lines 20-37).

7) Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,985,245 by Takahashi, and further in view of U.S. patent 6,624,909 by Czyszczewski et al., and further in view of U.S. Patent 7,139,085 by Sakaguchi.

Takahashi does not specifically teach the method of claim 1 further comprising determining printer capability data and prompting a user for said cluster printing selection, wherein said prompting only allows selection of printing devices with capabilities that match requirements of said print task.

Sakaguchi teaches the method of claim 1 further comprising determining printer capability data and prompting a user for said cluster printing selection, wherein said prompting only allows selection of printing devices with capabilities that match requirements of said print task (Column 4, lines 6-19).

Takahashi and Sakaguchi are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Sakaguchi to add only allowing selection of printing devices with proper capabilities. The motivation for doing so would have been to avoid selecting printers that do not have the functions desired by the user (Column 4, line 13). Therefore it would have been obvious to combine Takahashi with Sakaguchi to obtain the invention as specified by claim 4.

8) Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,985,245 by Takahashi, and further in view of U.S. patent 6,624,909 by Czyszczewski et al., and further in view of U.S. Patent 7,139,085 by Sakaguchi, and further in view of U.S. Patent 5,287,194 by Lobiondo.

Takahashi does not teach the method of claim 4 wherein said printer capability data comprises a rate at which said printing devices prints pages.

Lobiondo teaches the method of claim 4 wherein said printer capability data comprises a rate at which said printing devices prints pages (column 3, line 68 - column 4, line 3).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 5.

9) Claims 6, 9-13, 15, 16, 18, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,985,245 by Takahashi, and further in view of U.S. patent 6,624,909 by Czystyszewski et al., and further in view of U.S. Patent 5,287,194 by Lobiondo.

10) Regarding claim 6, Takahashi does not teach the method of claim 1 wherein said determining comprises dividing said print task among said specific printing devices according to the speed of each of said specific printing devices.

Lobiondo teaches the method of claim 1 wherein said determining comprises dividing said print task among said specific printing devices according to the speed of each of said specific printing devices (column 4, lines 52-54).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of

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printing speed. The motivation for doing so would have been to provide “optimum scheduling” (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 6.

11) Regarding claim 9, Takahashi does not teach the method of claim 1 wherein said determining comprises dividing said print task, when said print task comprises multiple copies of a print job, into sets of copies of said print job, each of said sets comprising a number of copies substantially proportional to the number of pages per minute (PPM) each of said specific printing devices printer can print.

Lobiondo teaches the method of claim 1 wherein said determining comprises dividing said print task, when said print task comprises multiple copies of a print job, into sets of copies of said print job, each of said sets comprising a number of copies substantially proportional to the number of pages per minute (PPM) each of said specific printing devices can print (column 4, lines 58-64; column 5, lines 45-62).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide “optimum scheduling” (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 9.

12) Regarding claim 10, Takahashi does not teach the method of claim 1 wherein said determining comprises dividing said print task, when said print task comprises

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multiple and distinct print jobs, into sets of distinct print jobs, each of said sets comprising a number of pages substantially proportional to the number of pages per minute (PPM) each of said specific printing devices can print.

Lobiondo teaches teach the method of claim 1 wherein said determining comprises dividing said print task, when said print task comprises multiple and distinct print jobs, into sets of distinct print jobs, each of said sets comprising a number of pages substantially proportional to the number of pages per minute (PPM) each of said specific printing devices can print (column 4, lines 58-64; column 5, lines 9-12).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 10.

13) Regarding claims 11, 18, 23 and 24, Takahashi teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component; receiving user input comprising a cluster printing selection at said print system component, wherein said selection identifies specific printing devices and communicates a specific quantity of printing devices (Column 22, lines 30-37; Figure 20); combining said print task with said cluster printing selection using said print system component on said computing device thereby creating driver-

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dependent data; transmitting said driver-dependent data to a printer driver, wherein said printer driver resides on said computing device; creating spool data from said driver-dependent data, using said printer driver on said computing device (Column 29, lines 21 – Column 30, line 14; figure 1, item 102 is the “printing device”); determining, with said print system component on said computing device, portions of said spool data to be distributed to each of said specific printing devices (Column 29, lines 21 – Column 30, line 14); despooling further comprises concurrent parallel playback of spool data to print drivers corresponding to each of said specific printing devices (Column 25, lines 20-49).

Takahashi does not specifically teach a print system component, which resides on a computing device which said print task originates; determining, with said print system component on said computing device, the output capacity of said specific printing devices; and despooling said spool data in accordance with said cluster printing selection wherein said despooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device's output capacity.

Czyszczewski teaches a print system component, which resides on a computing device which said print task originates (column 7, lines 54-56; print server can have a user interface for inputting print job selections).

Takahashi and Czyszczewski are combinable because they are both from the printing field of endeavor.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to combine Takahashi with Czyszczewski to add a user interface at

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a server. The motivation for doing so would have been “to select a document to print” (column 7, line 56).

Lobiondo teaches determining the output capacity of said specific printing devices; and despooling said spool data in accordance with said cluster printing selection wherein said despooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device’s output capacity (column 4, lines 58-64; column 5, lines 45-62).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide “optimum scheduling” (Column 2, line 41).

Therefore it would have been obvious to combine Takahashi with Lobiondo and Czyszczewski to obtain the invention as specified by claims 11, 18, 23 and 24.

14) Regarding claim 12, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus.

Lobiondo teaches the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus (column 4, lines 16-64).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide “optimum scheduling” (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 12.

15) Regarding claim 13, Takahashi teaches the method of claim 11 wherein said determining the output capacity comprises querying a network printer using a network communications protocol (Column 24, lines 19-37).

16) Regarding claim 15, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises accessing a printer attribute registry.

Lobiondo teaches the method of claim 11 wherein said determining the output capacity comprises accessing a printer attribute registry (column 3, line 68 – column 4, line 3).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide “optimum scheduling” (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 15.

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17) Regarding claim 16, Takahashi teaches the method of claim 11 wherein said print system component comprises a print processor (Figure 1).

19) Regarding claim 19, Takahashi does not teach the method of claim 18 wherein said throughput comprises a printer's speed in PPM.

Lobiondo teaches the method of claim 18 wherein said throughput comprises a printer's speed in PPM (column 4, lines 58-64).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 19.

20) Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (as modified by Lobiondo and Czyszczewski) as applied to claim 11 above, and further in view of U.S. Patent 6,049,394 by Fukushima.

21) Regarding claim 14, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises querying a printer driver.

Fukushima teaches the method of claim 11 wherein said determining the output capacity comprises querying a printer driver (column 17, lines 1-9).

Takahashi and Fukushima are combinable because they are from the printer-networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Fukushima to estimate capabilities. The motivation for doing so would have been to determine “that the printing speed can be followed”(column 17, line 8). Therefore it would have been obvious to combine Takahashi to obtain the invention as specified in claim 14.

22) Regarding claim 17, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises estimating the capability of some of said multiple printing devices.

Fukushima does teach determining the output capacity comprising estimating the capability of some of said plurality of printing devices (column 17, lines 1-9).

Takahashi and Fukushima are combinable because they are from the printer-networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Fukushima to estimate capabilities. The motivation for doing so would have been to determine “that the printing speed can be followed”(column 17, line 8). Therefore it would have been obvious to combine Takahashi with Fukushima to obtain the invention as specified in claim 17.

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23) Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (as modified by Lobiondo and Czyszczewski) as applied to claim 18 above, and further in view of U.S. Patent 6,665,082 by Takeoka et al.

Takahashi does not teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity.

Takeoka does teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity (Column 3, lines 11-25; Column 9, line 66 – Column 10, line 13).

Takeoka and Takahashi are combinable because they are from the same art of printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Takeoka to determine output capacity comprising determination of printing storage capacity. The motivation for doing so would have been to “determine the amount of image data included in a packet” (Column 3, line 18). Therefore it would have been obvious to combine Takahashi and Takeoka to obtain the invention as specified in claim 20.

24) Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (as modified by Lobiondo and Czyszczewski) as applied to claim 18 above, and further in view of U.S. Patent 6,891,632 by Schwartz.

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25) Regarding claim 21, Takahashi does not teach the method of claim 18 wherein a determination of said output capacity comprises an analysis of a printing device's rasterization pipeline.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an analysis of a printing device's rasterization pipeline (Column 3, lines 3-22; Column 10, lines 1-10).

Schwartz and Takahashi are combinable because they are from the same art of printing.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Takahashi with Schwartz to obtain the invention as specified in claim 21.

26) Regarding claim 22, Takahashi does not teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task (Column 3, lines 3-22; Column 10, lines 1-10; Column 3, lines 29-30).

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Schwartz and Takahashi are combinable because they are from the same art of printing.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Takahashi with Schwartz to obtain the invention as specified in claim 22.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN O. DULANEY whose telephone number is (571)272-2874. The examiner can normally be reached on Monday - Friday (10am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Benjamin O Dulaney/

Examiner, Art Unit 2625

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625